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| APPLICATION NO.  | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|--|-------------|----------------------|---------------------|------------------|
| 10/080,562   | 02/25/2002  | Tomoichi Kamo        | 62807-04            | 8250             |
| 7590 03/25/2004  |             |                      | EXAMINER            |                  |
| McDermott, Will & Emery<br>600, 13th Street, N.W.<br>Washington, DC 20005-3096 |             |                      | YUAN, DAH WEI D     |                  |
|  |             |                      | ART UNIT            | PAPER NUMBER     |
|  |             |                      | 1745                |                  |

DATE MAILED: 03/25/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

|                              |                                      |                                    |  |
|------------------------------|--------------------------------------|------------------------------------|--|
| <b>Office Action Summary</b> | <b>Application No.</b><br>10/080,562 | <b>Applicant(s)</b><br>KAMO ET AL. |  |
|                              | <b>Examiner</b><br>Dah-Wei D. Yuan   | <b>Art Unit</b><br>1745            |  |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
  - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
  - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 10 March 2004.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) 2,6-8 and 10-13 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,3-5 and 9 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 25 February 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>02252002,04222002</u> . | 6) <input type="checkbox"/> Other: _____  |

**FUEL CELL POWER GENERATION EQUIPMENT  
AND A DEVICE USING THE SAME**

Examiner: Yuan      S.N. 10/080,562      Art Unit: 1745      March 18, 2004

***Election/Restrictions***

1. Applicant's election without traverse of Group I-1, claims 1,3-5,9, in Paper filed on March 10, 2004 is acknowledged. Claims 2,6-8,10-13 are withdrawn from consideration.

***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1,3-5,9 are rejected under 35 U.S.C. 102(e) as being anticipated by Yonetsu et al. (US 6,506,513 B1).

With respect to claim 1, Yonetsu et al. teach a fuel cell power generation system having a fuel cell stack body (2), a liquid fuel tank (1) and a pathway for introducing a liquid fuel from the liquid fuel tank into the stack body. The fuel cell stack body comprises a plurality of fuel cells that are electrically connected to each other. Each fuel cell has an anode, a cathode and an electrolyte membrane interposed between the electrodes. The liquid fuel tank further comprises

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a fine hole (6) and a lid (9) (air vent holes). See Figures 1 and 3. Column 4, Lines 33-49; Column 6, Lines 1-5.

With respect to claim 3, each fuel cell comprises a vaporizing plate (g) (a diffusion layer). See Column 4, Lines 45-49; Figure 2.

With respect to claim 4, a liquid fuel permeating material (8) is used to provide liquid fuel to the anode of the fuel cell stack body. See Column 6, Lines 17-39.

With respect to claim 5, the liquid fuel tank is made of material selected from the group consisting polyethylene, polypropylene, polycarbonate or a fluorine-containing resin such as polytetrafluoroethylene. See Column 12, Lines 22-30.

With respect to claim 9, the liquid fuel is selected from the group consisting of methanol, ethanol and propanol. See Column 5, Lines 4-7.

3. Claims 1,3-5,9 are rejected under 35 U.S.C. 102(a) as being anticipated by Hikuma (JP 2000-268835).

Hikuma et al. teach a small-sized power generating device comprising a fuel holding part (14,20) (fuel container); and a plurality of fuel cell units which are connected in series. See Paragraph 43; Figure 8. The fuel holding part has an aeration structure (15) that is considered as air vent holes. See Abstract; Figure 3.

With respect to claim 3, each fuel cell unit comprises catalyst layer (12a), diffusion layer (12b), and electrolyte membrane (13). See Figure 2.

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With respect to claim 4, Hikuma teaches the use of a diffusion layer (a liquid fuel holding material) which is in contact with the catalyst layer (anode). See Figure 2.

With respect to claim 5, liquid fuel, such as methanol or formaldehyde, is used in the device. See Paragraph 24.

With respect to claim 9, the fuel holding part is made of hard plastics, such as polytetrafluoroethylene and polystyrene. See Paragraph 22.

#### ***Double Patenting***

4. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

5. Claims 1,3-5,9 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-5 of copending Application No. 10/166,263. Although the conflicting claims are not identical, they are not patentably distinct from each other because both applications claim a fuel cell power generation equipment having multiple fuel cell units mounted on a fuel container.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dah-Wei D. Yuan whose telephone number is (571) 272-1295. The examiner can normally be reached on Monday-Friday (8:00-5:00).

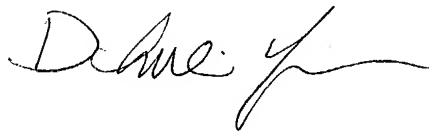
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick J. Ryan, can be reached on (571) 272-1292. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

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applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Dah-Wei D. Yuan  
March 19, 2004

A handwritten signature in black ink, appearing to read "D. Yuan", with a long horizontal flourish extending to the right.